From: James Peeples
Sent: Wednesday, June 26, 2013 3:52 PM
To: O'Connor, David A.
Cc: Ihsan Alfayyomi; Jeff DeLaet
Subject: RE: Grenada Manufacturing: Comments on CMS Report

Dave,

This email should be very helpful. The original email from Don Webster is one of the main ones I have been looking for. I guess I understand now why it is not in my email history. Do you think we should forward this with an explanation that you found this email in your archives and indicate that it was not the only communication that discussed the plan to end indoor monitoring but that it does clearly state Don's position. If we are going to do this, it will be more effective if done before Meredith sends her response to our letter re: the indoor air.

James Peeples, PE
T&M Associates
(b) (6) (Mobile)
(614) 339-3380 (Office)

-----Original Message-----
From: O'Connor, David A. [mailto:David.OConnor@Meritor.com]
Sent: Wednesday, June 26, 2013 3:59 PM
To: James Peeples
Cc: Ihsan Alfayyomi; Jeff DeLaet
Subject: FW: Grenada Manufacturing: Comments on CMS Report

Jim:

I believe the summary of emails below may be helpful, including statements concerning completion of Indoor Air monitoring of the plant - FYI.

David A. O'Connor
Corporate Environmental Manager
Environmental, Health and Safety Department
248.435.2706 tel (b) (6) cel

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2135 West Maple Road
Troy, Michigan 48084 USA
meritor.com

-----Original Message-----
From: Al-Fayyomi, Ihsan [mailto:IAlFayyomi@brwncald.com]
Sent: Tuesday, August 17, 2010 10:51 AM

To: Anderson.Meredith@epamail.epa.gov
Cc: O'Connor, David A.
Subject: FW: Grenada Manufacturing: Comments on CMS Report

Meredith;

Good morning, as we discussed earlier this morning, please see Don's comment below (item #5) which indicates" If the results of the 2009 monitoring confirm that TCE and Toluene are flushing from under the Main Plant Building, and there is no buildup of Indoor Air contaminants, then future Indoor Air Monitoring can be suspended and the Sheet Pile Barrier need not be built". Therefore, we would request that AOC B in table 3 of the HZWA permit be modified to reflect that statement. I look forward to our discussion on how to proceed forward. Have a great day.

Ihsan Al-Fayyomi
Vice President
Office Manager
Brown and Caldwell | Columbus, OH
IAlfayyomi@brwncald.com
T 614.410.3082 | C (b) (6) [redacted]

-----Original Message-----
From: Webster.Donald@epamail.epa.gov [mailto:Webster.Donald@epamail.epa.gov]
Sent: Monday, May 05, 2008 12:17 PM
To: Al-Fayyomi, Ihsan
Cc: Debra.Chelf@ArvinMeritor.com; dwilliams@grenadamfg.com; Knight.Karen@epamail.epa.gov; Pallas.Jeff@epamail.epa.gov
Subject: Fw: Grenada Manufacturing: Comments on CMS Report

Ihsan;

Here are the combined comments of Sharon Matthews and myself. I don't think there are any show stoppers here. If you can address these by email it would be optimal. Lets have a conference call with Arvin Meritor, Don Williams, Sharon Matthews and your people once you have had time to look over these comments.

My intent is to issue letter of approval with Jeff's signature for your CMS work. That may take a month to get after we agree on the CMS Workplan. I want you to proceed with the field work this summer, so if a verbal from Jeff is what you need to get it started, I will ask Jeff for that.

Thank you for your timely efforts to date.

Sincerely, Don

Don Webster Comments:

1. The purpose of the Corrective Measures Pre-design Investigation Results was consistent with the Corrective Measures Pre-design Workplan.
EPA considers that the former report satisfies the requirements for a Corrective Measures Study Report, while the latter report satisfies the requirements for a Corrective Measures Study Workplan. With the approval or conditional approval of the Corrective Measures Study Report, Grenada Manufacturing will be able to move forward with construction of the selected and approved remedy.

2. Section 1.4 of the CMS report correctly identifies the remaining remedial situations at the facility.

3. EPA agrees with the facility's assessment that the Lagoon Temporary Wells and the Plant Temporary Wells may now be abandoned according to Mississippi State requirements.

4. EPA agrees with the facility's decision to close the Sludge Lagoon Area with in-place stabalization of the sludge based on the data and recommendations made in Section 4.0 of the CMS Report and to construct a cap system based on the vadose zone delineation results described in section 3.0 of the Report. If this is not a clean closure, i.e., the lagoon is being closed with waste in place, then the facility must add the Sludge Lagoon, SWMU 4 to the Financial Assurance Plan for the facility in accordance with the permit.

Sharon, I talked to Brown & Caldwell about why they did not analyze for VOCs and semi-volatiles in groundwater. They said that was not the objective of this study. We know that there is still TCE and some toluene in the groundwater. They were looking for recoverable pockets of LNAPL and DNAPL. Do you agree with that? BTW, the size of the Sludge Lagoon is about 250' by 150'. I forgot to ask how deep the
sludge was. If it is 3' deep, this is 56,250 cubic yards of
contaminated sludge. I think that is about 5,000 dump truck loads.
What do we need to know about the waste left in place? I know the sediment has been characterized, I don't have that report in front of me. I assume you will need to know that to make a determination if it is appropriate to cap this SWMU? Please tell me what you need and I will either find it or ask the facility to find it.

5. AOCs A and B, are the main sources of TCE and toluene contamination whereas the location of the former Chrome Plating Lines downgradient of AOCs A and B is one of the main sources of Hexavalent Chromium contamination at the plant. Flux of LNAPL and DNAPL contaminants toward the already installed Permeable Reactive Barrier may be desireable. At the same time EPA wishes to confine the Hexavalent Chromium Plume under the Main Plant Building where it has an Institutional Control until
plant closure. However, the most important factor here is the
potential for indoor air contamination of the Main Plant Building from the toluene and TCE contamination. Therefore, anything which retards the flushing or breakdown of TCE and toluene contamination is less desireable. The EPA accepts the facility's recommendations in Section
6.4 of the CMS Report, including the committment to conduct an
additional indoor air monitoring event. The last indoor air monitoring
events were conducted in February and August of 2004. EPA is of the opinion that both 'heating' and 'cooling' temporal events are necessary for a complete evaluation. Therefore, EPA would like the paired event repeated in 2009 using the same monitoring locations as before. If the results of the 2009 monitoring confirm that TCE and Toluene are flushing from under the Main Plant Building, and there is no buildup of Indoor Air contaminants, then future Indoor Air Monitoring can be suspended and the Sheet Pile Barrier need not be built.

6. The High-Vacume Multi-Phase Pilot Test appears to have been unsuccessful. The facility may return to manual bailing during monitoring events for removal of LNAPL as long as the results of the
2009 Indoor Air sampling support this decision.

Sharon, is there any other technology the facility should have considered, or is this LNAPL and DNAPL just simply diluted out from the source area?

7. Regarding the Institutional Controls that the facility lists in Section 7.3 Items 1., 2., and 3: where are the stated institutional controls recorded in a signed, written document? This must be specified in the permit.

8. EPA agrees with the additional controls proposed by the faciltiy in Section 7.4 Recommendations.

9. EPA will require deed restrictions similar to those in use for the

Chrome Plating Line at the Sludge Lagoon if the unit is closed with waste left in place. This will be specified in the permit.

Sharon Matthews and SESD Comments:

Section 1: Section 1 was a good summary of past investigations at the site and what the intended purpose of the corrective measures study is. The tasks delineated in the July 2006 "Corrective Measures Pre-Design Activities Work Plan" were covered in the February 2008 document. I agree with the recommendations given in Section 1.4. This is the information that was covered in our October 2007 meeting with the facility and their consultants.

Section 2: With regard to the additional non-aqueous-phase liquids delineation, I agree with the recommendation to abandon the temporary wells, but monitor existing permanent wells MW-25, MW-27, MW-28, MW-29 and MW-30. I did have one question: the PID data in Appendix A indicated hits in some of the temporary wells. Were these readings taken during drilling or were they taken while measuring the fluid levels? The readings were ranged from less than 1 ppm to greater than 1000 ppm.

Section 3: In this section, the vadose-zone contamination delineation in the sludge-lagoon area is discussed. Based on the information given in the report, I agree with the recommendations given in Section 3.4. The report mentions a Sludge-Lagoon Closure Plan to specify the stabilization procedure and design of the cover/cap to minimize infiltration. When will this Plan be available for review?

Section 4: I could not find an estimate of how many cubic feet of sludge are in the lagoon. Is this another reason the facility has opted to close in place, rather than dig out the sludge and haul it off for disposal? With regard to the contaminants in the lagoon: hadn't this information been given in past documents? MDEQ should have this info, since they granted the delisting in December 1982. According to the first paragraph of Section 4, the sludge was not a hazardous waste, so there must have been some analytical data to back this up. It appears that the sludge-stabilization tests show that closing in place is a viable option for the sludge and could reduce vadose-zone contamination impact to the groundwater. As your comment noted, if this is not a clean closure, then the sludge lagoon must be added to the Financial Assurance Plan.

Section 5: This scenario was discussed during the October 2007 meeting with the facility. Based on the data they gave then and in this document, the recommendations listed in Section 5.4 are adequate. And, I think your comment 5 expands on the indoor air monitoring issue and is appropriate in requesting a paired air monitoring event using the same locations as before. This would give more information on whether the Sheet Pile Barrier should ultimately be constructed.

Section 6: Based on the recommendations given in Section 6.4, I agree that high-vacuum multiphase extraction was not as successful as had been hoped for. The use of manual bailers seems to be a good option for problem. It appears the dissolved-phase toluene may actually be beneficial in affecting the longevity of the zero-valent iron in the PRB. Is there anyone in the Atlanta office who is familiar with this concept and could comment on it?

Section 7: I don't have a copy of the permit so I can't address the institutional controls that have been implemented for this site. I will defer to your comments on this.

Section 8: I agree with the summary of recommendations given here.
With regard to your comment on Section 8.3 to further define the cap, it does need to be stated if it is an impermeable cap.

Section 9: No comment.

Appendices: No comment.